



50W Ext. Low Ku-Band BUC

KEY FEATURES

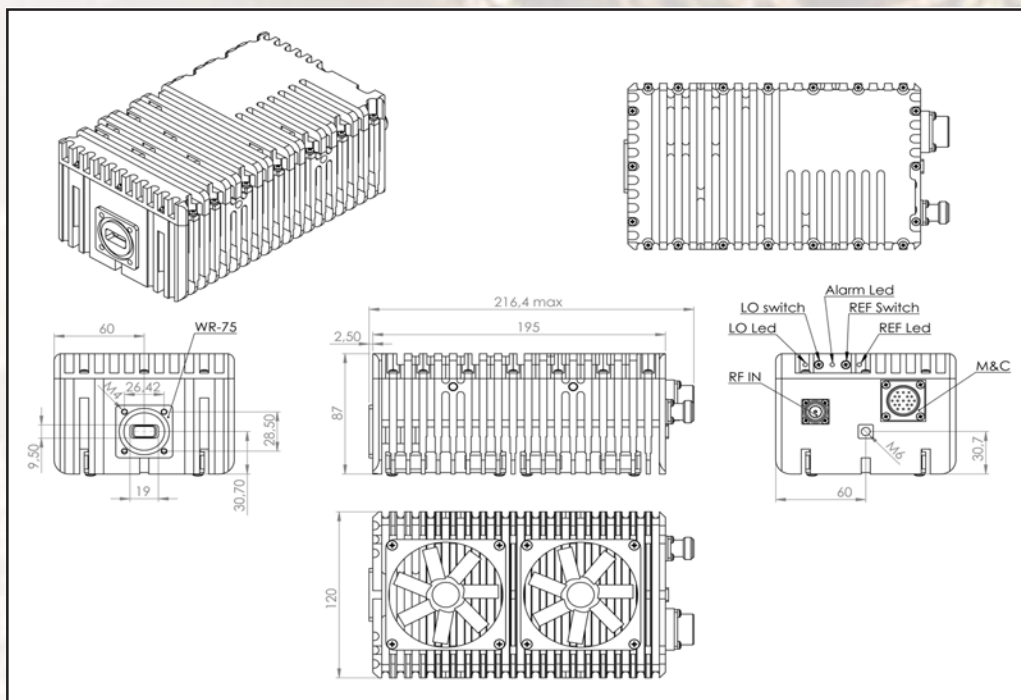
- ◆ Output frequency 12.75-13.50 GHz
- ◆ Based on GaN technology which enables high efficiency low energy consumption and high reliability
- ◆ Smallest and lightest
- ◆ Auto-ranging power 80 - 240 VAC
- ◆ Incomparable low power consumption (272W)
- ◆ Digital temperature compensation
- ◆ Amplifier, L.O. and 10MHz Reference Status LEDs
- ◆ Field-exchangeable (F/N) IF connector
- ◆ M&C - combined RS-232/485/FSK (optional), Ethernet (optional)
- ◆ Internal 10MHz high stability 10^8 reference (optional)
- ◆ Three-year warranty
- ◆ RoHS compliant

ABDN50KXL / ABDN50KXLF



This smallest and lightest 50W Low Ku-Band Block Up Converter is designed to be mounted on a feed horn. The unit is ideal for portable and mobile applications. Double – L.O. feature makes unit universal for Low Ku-Band requirements. DC powered through the MS Connector and consumes less than 272W.

Mechanical Drawing





50W Ext. Low Ku-Band BUC

TECHNICAL SPECIFICATIONS	
RF frequency	12.75 to 13.50 GHz
Local oscillator	11.80 GHz and 12.05 GHz
IF frequency	950 to 1,700 MHz
Output power	50W (+47 dBm min.) 25W P-linear (44 dBm min.)
IF connector	N-type or F-type (field-exchangeable)
Power supply - auto-ranging	+80~+240 VDC via MS Connector, 272W max
Internal 10MHz high stability reference	10 ⁻⁸
Output interface	WR-75 G
Gain	72 dB typ.
IMD3 (two tones)	-26 dBc max. 2 signal 5MHz apart at P-LINEAR
L.O. leakage	-45 dBm max
Spurious	-53 dBc max
Spectral regrowth (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 3dB back-off from rated output power)	-30 dBc
TX Gain variation	± 0.5 dB over 40 MHz ± 1.8 dB over full band
TX Gain stability over temperature range	± 1.5 dB typ., ± 1.8 dB max
Requirement for external reference frequency input power	via IF cable 10 MHz (sine-wave) -5 to +5 dBm @ input port
Phase noise (Exceeds Intelsat's standard IESS308/309)	-55 dBc/Hz max. @ 10 Hz -65 dBc/Hz max. @ 100 Hz -75 dBc/Hz max. @ 1 KHz -85 dBc/Hz max. @ 10 KHz -95 dBc/Hz max. @ 100 KHz -115 dBc/Hz max @ 1 MHz
Noise power density	Transmit -66 dBm/Hz (max)
	Receive -157dBm/Hz (max)
Noise figure	20 dB max
Input V.S.W.R.	1.5 : 1 max
Output V.S.W.R.	1.5 : 1 max
Mute	Shut off the BUC in case of L.O. unlocked
M&C	RS-232 and RS-485, Ethernet
FSK	Multiplexed on TX IFL, compatible with Comtech and Paradigm
Status LED	
Amplifier	RED Summary alarm
	GREEN All OK
L.O.	YELLOW All OK standard L.O 12.05 GHz
	YELLOW blinking All OK extended L.O. 11.80 GHz
10MHz	GREEN External 10MHz reference
	GREEN blinking Internal 10MHz reference
	RED No 10MHz reference detected
Temperature range (ambient) operating storage	-40 deg C to +55 deg C -55 deg C to +85 deg C
Vibration and shock	Complies with MIL-STD-810E
Dimensions & housing	216.5 (L) x 120 (W) x 104 (H) mm 7.67" (L) x 4.72" (W) x 4.09" (H)
Weight	2.8 kg (6.17 lbs) max